

Claim Amendments

1. (Currently Amended) A printer for printing an a Unicode encoded data stream, the data stream capable of including a section of Unicode complex text data, the printer comprising:

a text parser within the printer adapted to parse the Unicode encoded data stream to determine the section of Unicode complex text data in the Unicode encoded data stream; and

a layout engine within the printer and coupled to the text parser, the layout engine adapted to receive the section of Unicode complex text data from the text parser, and adapted to determine at least one of a plurality of glyphs of at least one font corresponding to the section of Unicode complex text data[[.]]; and

a rasterizer within the printer coupled to the layout engine and the text parser, the rasterizer adapted to perform processing on the section of Unicode complex text data based on the language encoded by the data to position the at least one of the plurality of glyphs on a portion of a page.

2. (Cancelled).

3. (Original) The printer of claim 1 wherein the at least one font includes an encoding table and a glyph table, the encoding table including a plurality of codes and a plurality of glyph indices corresponding to the plurality of codes, the glyph table including the plurality of glyphs corresponding to the plurality of glyph indices.

4. (Original) The printer of claim 3 wherein the at least one glyph can include a null glyph.

5. (Currently Amended) The printer of claim 3 wherein the layout engine determines the at least one glyph by determining at least one index of the plurality of glyph indices for the section of Unicode complex text data and at least one position for the at least one glyph.

6. (Currently Amended) The printer of claim 3 wherein the text parser provides a remaining portion of the Unicode data stream not including the section of Unicode complex text data to the rasterizer to perform one-to-one rendering of a remaining portion of the Unicode data stream.

7. (Cancelled).

8. (Currently Amended) The printer of claim [[7]] 1 wherein the text parser determines the section of Unicode complex text data based upon at least one code word for the section of Unicode complex text data.

9. (Currently Amended) The printer of claim 1 wherein the text parser determines the section of Unicode complex text data based upon at least one marker for the section of Unicode complex text data.

10. (Cancelled).

11. (Currently Amended) A method for printing a Unicode ~~an-needed~~ data stream, the Unicode data stream ~~capable of~~ including a section of Unicode complex text data, the method comprising the steps of:

(a) parsing the Unicode data stream in a printer to determine the section of Unicode complex text data in the data stream; ~~and~~

(b) utilizing a layout engine to receive the section of Unicode complex text data from the text parser and to determine at least one of the plurality of glyphs corresponding to the section of Unicode complex text data[[.]]; ~~and~~

(c) performing processing of the section of Unicode complex text data based on the language encoded by the data to position the at least one of the plurality of glyphs on a portion of a page.

12. (Cancelled).

13. (Currently Amended) The method of claim 11 further comprising the step of:
[(c)] (d) utilizing an encoding table including a plurality of codes and a plurality of glyph indices corresponding to the plurality of codes, the glyph table including the plurality of glyphs corresponding to the plurality of glyph indices.
14. (Currently Amended) The method of claim 13 wherein the layout engine determines the at least one glyph by determining at least one index of the plurality of glyph indices for the section of Unicode complex text data and at least one position for the at least one glyph.
15. (Currently Amended) The method of claim 13 further comprising the step of:
[(d)] (e) utilizing a rasterizer to perform one-to-one rendering of a remaining portion of the Unicode encoded data stream not including the section of Unicode complex text data.
16. (Cancelled).
17. (Currently Amended) The method of claim [[16]] 11 wherein the data parsing step (a) further includes the step of:
(a1) determining the section of Unicode complex text data based upon at least one code word for the section of Unicode complex text data.
18. (Currently Amended) The method of claim 11 wherein the data parsing step (a) further includes the step of:
(a1) determining the section of Unicode complex text data based upon at least one marker for the section of Unicode complex text data.